Kalbach, L A [Bureau of Education, Dept. of the Interior, Washington, D.C.] Feb, Mar. 1916

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DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION
WASHINGTON

February 18, 1916.

Dr. R. A. Falconer,
President, Toronto University,
Toronto, Ontario,
P. C.

My dear sir:

I beg to call your attention to a special investigation undertaken in this office with the purpose of meeting numerous inquiries relative to the admission requirements, general scope, and standards of technical schools in various foreign countries. The Faculty of Applied Science and Engineering of the University of Toronto would properly be included in the investigation, and, although its work is quite fully set forth in the University Calendar, it is presumed that there are special publications which would give fuller details, or that it might seem advisable to you to have a statement of the scope and standards of the faculty prepared under your own supervision.

The enclosed prospectus covers in outline the information which it is believed would meet inquiries addressed to this office, and also afford a fairly adequate idea of the relative scope and character of technical education as developed in the leading educational countries. Any suggestions or assistance that you may offer respecting the technical department of the University of Toronto will be greatly appreciated.

Very truly yours,

L. A. Kalbach

Acting Commissioner.

Enclosure.

Scheme of Inquiry Respecting Technical Institutions.

The institution: name, location, date of foundation, or statement indicating whether it is of recent origin or long established. Grade /i. e., university grade or secondary/.

Admission requirements: age, scholastic preparation -- this may be covered by reference to the school whose diploma or certificate is accepted for admission, or by the subjects of the entrance examination. In either case the extent of the preparation in typical subjects should be indicated. Typical subjects include mathematics, physics, and the language requirement /classical or modern/. (It would suffice to state the upper limit of the requirements in each typical subject, or branch of the subject). For other subjects general statement would suffice.

Scope of the technical school or department (i.e., Polytechnic, monotechnic, etc.) Years in the course or courses. A typical course in detail. Relative amount of time devoted to theoretic instruction; laboratory exercises; arrangements for practical work in organized industries. Conditions of graduation.

NAME

University of Toronto

Faculty of Applied Science and Engineering .

Toronto, Canada.

ESTABLISHED 1877

In 1877 the provincial government established what was known as the Ontario School of Practical Science and in 1906 the institution thus designated became, by act of parliament, the Faculty of Applied Science and Engineering of the University of Toronto.

under enactment of University Senate became Faculty of App Sc in 1900

(Equipment. There are four buildings containing apparatus requisite for a thorough ~~engineering~~ training in the engineering professions)

[illegible] "Special lectures"

AGE

Candidate for admission must be seventeen years of age.

PREPARATION

Matriculation examination of the Provincial Department of Education. At least four, usually five, years' preparation in a high school, with provincial examinations, the last year being devoted especially to higher mathematics

SUBJECTS

(i) Compulsory
* English
History
Advanced Math
and
(ii) three of
Latin
Greek
German
French
Science
Modern Science being preferred

Algebra -	Binominal Theorem
Trigonometry-	Expression for the area triangles and the solution of triangles.
Geometry -	Including introductory course in Ahalytical Geometry.
Physics -	Electricity and Magnetism. Light, sound, heat, etc., with laboratory work.
Chemistry -	The more important elements and their compounds, laboratory work.
History -	British, Canadian and Ancient
English -	Literature and composition.
French) German) Latin) Greek)	Authors and composition

The candidate must present satisfactory certificates in English, History, Mathematics and in three of the following, Greek, Latin, French, German and Science (Physics & Chemistry).

SCOPE OF INSTITUTION - Polytechnical

Civil, Mining, Mechanical, Electrical, Chemical and Metallurgical Engineering, Architecture and Applied Chemistry.

The course in each is of four years' duration and leads to the degree of Bachelor of Applied Science.

AVERAGE TIME GIVEN TO INSTRUCTION

Lectures 14 hours per week, Laboratory 22 hours per week.

TYPICAL COURSE - Civil Engineering.

First Year Subjects - Mathematics; Surveying, including Field Work; Physics (Statics and dynamics); Chemistry; Commercial Accounting; a Modern Language and Drawing.

Second Year Subjects - Mathematics; Astronomy; Surveying, including Field Work; Mechanics; Physics and Chemistry, including laboratory work; Mineralogy; Banking; a Modern Language; Drawing.

Third Year Subjects - Mathematics; Astronomy and Geodesy; Surveying with Field Work; Hydraulics; Theory of Structures; Materials of Construction, with laboratory work; Engineering Chemistry; Geodesy; Photography; Physics; Drawing.

Fourth Year Subjects - Theory of Structures and Materials of Construction, with laboratory work; Electricity;

Thermodynamics; Geology; Contracts and Specifications; Thesis on an approved technical subject and, one of (a) Astronomy and Geodesy (b) Sanitary and Highway engineering (c) Structural Engineering (d) Strength of Materials and Railway Engineering.

The student may specialize on one of the options. Particularly in the final year the practical side of the subjects treated is emphasized.

CONDITIONS OF GRADUATION

Passing the examinations of each of the four years.

March 7th, 1916

L. A. Kalbach, Esq.,
Department of the Interior,
Bureau of Education,
Washington, D.C.

Dear Sir:

I am sending you an answer to the questions that you submitted to me relative to the admission requirements, scope and standards of our Faculty of Applied Science. I hope that these will meet what you need.

I am enclosing also a copy of our Curriculum for Junior Matriculation together with copies of our matriculation examination papers by which you will be able to estimate more readily the standards that we maintain.

Yours sincerely,

President.

UNIVERSITY OF TORONTO

Faculty of Applied Science and Engineering

Toronto, Canada.

ESTABLISHED 1877

In 1977 the Provincial Government established what was known as the Ontario School of Practical Science and in 1900 under enactment of University Senate became the Faculty of Applied Science and Engineering of the University of Toronto.

BUILDINGS.

There are four buildings containing apparatus requisite for s thorough training in the engineering professions.

AGE.

Candidate for admission must be seventeen years of age.

PREPARATION.

At least four, usually five year's preparation in a high school of the Province of Ontario, the last year being devoted especially to higher mathematics.

SUBJECTS- .

(i) Compulsory, English, History, Mathematics, Grammar.

(ii) three of

Latin Greek German French Science,

(Moderns and Science being preferred)

SCOPE OF INSTITUTION.

Civil, Mining, Mechanical, Electrical, Chemical and Metallurgical Engineering, Architecture and, Applied Chemistry.

The course in each is of four years' duration and leads to the degree of Bachelor of Applied Science.

AVERAGE TIME GIVEN TO INSTRUCTION.

Lectures 14 hours per week, Laboratory 22 hours per week.

TYPICAL COURSE.

Civil Engineering.

First Year Subjects: Mathematics; Surveying, including Field Work; Physics (Statics and Dynamics); Chemistry; Commercial Accounting: a Modern Language and Drawing.

Second Year Subjects: Mathematics, Astronomy, Surveying; including field work; Mechanics; Physics and Chemistry, including laboratory work; Mineralogy: Banking: a Modern Language; Drawing.

Third Year Subjects: Mathematics; Astronomy and Geodesy; Surveying with field work; Hydraulics; Theory of Structures; Materials of Construction, with laboratory work; Engineering Chemistry; Geodesy; Photography; Physics, Drawing.

Fourth Year Subjects: Theory of Structures and Materials of Construction, with laboratory work; Electricity; Thermodynamics; Geology, Contracts and Specifications; Thesis on an approved technical subject and, one of (a) Astronomy and Geodesy (b) Sanitary and Highway engineering (c) Structural Engineering (d) Strength of Materials and Railway Engineering. The student may specialise on one of the options. Particularly in the final year the practical side of the subjects treated is emphasised.

CONDITIONS OF GRADUATION: Passing the examination of each of the four years.